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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/521,225

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Archie W. Garner

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4743 7590 02/22/2007  
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EXAMINER

GILLESPIE, BENJAMIN

ART UNIT

PAPER NUMBER

1711

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/22/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/521,225

Applicant(s)

GARNER ET AL.

Examiner

Benjamin J. Gillespie

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 6/5/2006, 8/9/2005.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

1. Claims 2, and 22-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The language “idealized” renders claim 2 indefinite because “idealized” does not clearly define the relationship between the claimed “C-B-A-B-C” structure and the entire gel coat resin composition. Secondly, the language consisting of “sufficient” and “essentially” render claims 22-25 indefinite because it is vague and unclear as to how essentially modifies all or what constitutes a sufficient time or temperature that would satisfy the claims.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by McBain et al ('053). McBain et al teach a gel coat composition comprising a urethane gel coat resin having terminal acrylate groups. The urethane resin is the reaction product of hydroxyl-terminated oligoester, polyisocyanate and hydroxyalkyl (meth)acrylate (Abstract; col 7 lines 1, 26-30; and col 10 lines 24-26). In particular, the oligoester is the reaction product of hexanediol, neopentyl glycol and adipic acid, and has a molecular weight between 1,500 and 2,500 (Col 2 lines 37, 44-59). The polyisocyanate preferably consists of isophorone diisocyanate, and the hydroxyalkyl

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(meth)acrylate consists of hydroxyethyl acrylate (Col 3 lines 4, 7, and 9). The oligoester, diisocyanate, and hydroxyethyl acrylate is further disclosed to exist in molar amounts consisting of 1:2:2 respectively (Col 2 lines 65-67; col 3 lines 1-7). The structure of claim 2 would inherently be possessed by the polyurethane disclosed by McBain et al based on the shared stoichiometry and the reactive nature of OH and NCO functional groups.

3. Patentees go on to disclose the gel coat composition contains, in addition to the resin, other ingredients comprising free radical initiators, which are utilized in polymerization, and pigments. The gel resin is co-present with these components in an amount of 33% by weight of the total composition (Col 4 lines 56, 59-61; col 5 lines 12-16; col 7 lines 60-66; col 8 lines 1-18). Finally, McBain et al teach the gel coating composition to prepare exterior automotive body panels, which is then cured (Col 7 lines 16-20).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over McBain et al ('053) in view of Bristowe et al ('837). Aforementioned, McBain et al teach a gel coating composition comprising a urethane acrylate gel coat resin. However, McBain et al fail to teach a method of production wherein the oligoester is reacted with the hydroxyalkyl (meth)acrylate before the addition of diisocyanate.

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5. Bristowe et al teach an acrylate-terminated urethane coating composition comprising oligoester, isophorone diisocyanate, and hydroxyethyl acrylate (Abstract; col 2 lines 1-9, 35-36; col 4 lines 42; and col 5 line 35). Bristowe et al goes on to teach a preferred method of production wherein the oligoester is blended with the hydroxyethyl acrylate, forming an intermediate and then reacted with diisocyanate (Col 5 lines 67-68; col 6 lines 1-7). Bristowe et al explain that the disclosed method allows for better control of the exothermic reaction and minimizes the formation of by-products (Col 6 lines 17-19). Therefore it would have been obvious to one of ordinary skill within the art at the time of invention to utilize the preferred method of Bristowe et al in McBain et al based on the motivation that both teach acrylate terminated polyurethanes comprising analogous reactants, and Bristowe et al disclose that the preferred method allows for better control of reaction conditions while producing an improved product.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin J. Gillespie whose telephone number is 571-272-2472. The examiner can normally be reached on 8am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

B. Gillespie

  
**RABON SERGENT**  
**PRIMARY EXAMINER**